DOCUMENT RESUME

ED 348 741 EA 024 200

TITLE Evaluation of Chapter 1 in Arkansas, 1989-90.

INSTITUTION Arkansas State Dept. of Education, Little Rock.

PUB DATE 91 NOTE 21p.

PUB TYPE Reports - Evaluative/Feasibility (142)

EDRS PRICE MF01/PC01 Plus Postage.

DESCRIPTORS Disadvantaged Schools; *Educationally Disadvantaged;

Educational Needs; Elementary Secondary Education; Expenditures; *Federal Aid; *Federal Programs; *Program Evaluation; School Support; *State Norms

IDENTIFIERS *Arkansas; *Education Consolidation Improvement Act

Chapter 1

ABSTRACT

Chapter 1 programs in Arkansas are evaluated in this report. The federally funded program provides financial assistance to state and local educational agencies to meet the needs of educationally deprived children residing in districts with high concentrations of low-income families. This report lists federal requirements for state compliance with Chapter 1 and provides information about the level of involvement, service population, enrollment, and ethnic distribution of participants. Data on funding for instructional programs, cost per pupil, and staff are presented and the process for measuring student achievement is described. One figure and 14 tables are included. (LMI)

Reproductions supplied by EDRS are the best that can be made

* from the original document. *

EVALUATION OF

CHAPTER 1

ARKANSAS DEPARTMENT OF EDUCATION

IN

FEDERAL PROGRAMS

ARKANSAS

LITTLE ROCK, ARKANSAS

1989-90

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

- This document has been reproduced as received from the person or organization originating it.
- Minor changes have been made in improve reproduction quality
- Points of view or opiniona stated in this document do not necessarily represent official OERI position or policy

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

BEST COPY AVAILABLE

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) "

THE CHAPTER 1 CHALLENGE: ARKANSAS' CONTRIBUTION 1989-90

Burton Elliott
Director, General Education Division

Clearence Lovell Associate Director, Federal Programs

> Bob Kerr Coordinator, Chapter 1

Program Advisors, Chapter 1

John Heying
Elizabeth Gaston
Arlen Jones
Howard Wallace
Wes Whitley
Linda Cook



WHAT IS CHAPTER 1?

Chapter 1 of Title I of the Elementary and Secondary Education Act of 1988 (ESEA) is the largest federally-funded program designed to provide services to elementary and secondary students. The legislation authorizes services above and beyond those provided by the regular school program. Initially enacted as Title 1 of the Elementary and Secondary Education Act of 1965, Chapter 1 provides "...financial assistance to State and local educational agencies to meet the special needs of educationally deprived children..." who reside in areas with a high concentration of children from low income families. Chapter 1 funds are allocated to districts on the basis of a formula that includes the number of children from low income families residing in that area. Within a district, however, services are provided to students on the basis of educational need rather than family income.

All Chapter 1 programs must meet the following federal requirements:

Needs comprehensive

All Chapter 1 programs must conduct a needs assessment each year and provide services to students who are identified as having the greatest educational needs.

Supplementary services

Chapter 1 services are intended to be supplementary to the regular educational program and may not take the place of services provided by the district or state.

Concentration of services

The law requires that Chapter 1 programs be of sufficient size, scope and quality to "give reasonable promise of substantial progress toward meeting the special educational needs of the children being served" within the scope of available resources.

Instructional services

Chapter 1 is primarily an instructional program, but a limited amount of essential support services may be provided with available Chapter 1 funds.

Parental involvement

Programs must be designed and implemented with the consultation of parents.

Evaluation

All Chapter 1 programs must be evaluated and the results must be used for program improvement. Evaluation models enable the results of local evaluations to be summarized and reported at the state and national levels.

Program improvement

Chapter 1 programs that show aggregate losses in either the basic or advanced skills will trigger program improvement. Programs that do not meet their objective of "desired" outcomes also trigger program improvement. The program improvement plan "must be fully implemented as soon as possible but no later than the beginning of the second school year after the school year..." that triggered the need for improvement. In the case of second year program improvement, it must be implemented by the start of the next school year.

The FY '90 evaluation identified 124 LEAs in need of program improvement. There are 170 schools in first year and 60 schools in second year program improvement.



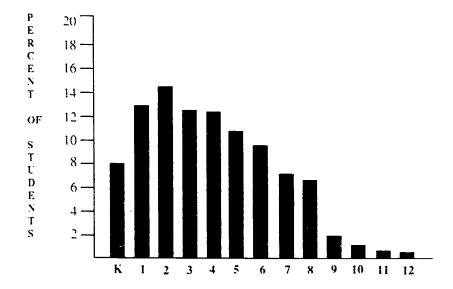
WHAT IS THE INVOLVEMENT IN ARKANSAS CHAPTER 1?

In FY 1990, Arkansas Chapter 1 programs were administered by 312 LEAs, 4 Educational Co-ops who administer 16 LEAs, and 2 institutions for neglected and delinquent.

A total of 67,199 students participated in one or more public and non-public Chapter 1 programs. In addition, 292 students received services in two state administered institutions for neglected or delinquent children. Administrative and technical assistance services were provided by the Arkansas Department of Education, specifically the Chapter 1 staff. Additional assistance was provided by the Region E Technical Assistance Center. The center is located in Denver and is funded by the federal government to provide assistance to state and local Chapter 1 programs.

WHO DOES CHAPTER 1 SERVE?

There were 67,199 students who received Chapter 1 services in FY 90. The number of participants in Chapter 1 programs decreased by .01 percent from FY 89.



Arkansas Chapter 1 participants continued to be concentrated in the early elementary grades with the next highest concentration in grades 4-6.



õ

WHAT IS THE DISTRIBUTION OF SIZE OF SCHOOLS IN ARKANSAS?

| ENROLLMENT OF LEA | NUMBER | PERCENT |
|-------------------|------------|---------|
| Less than 100 | 12 | 3.66 |
| 101 - 200 | 33 | 10.06 |
| 201 - 500 | 107 | 32.62 |
| 501 - 1,000 | 83 | 25.31 |
| 1,001 - 2,000 | 48 | 14.63 |
| 2,001 - 5,000 | 40 | 12.20 |
| 5,001 - 10,000 | 5 | 1.52 |
| Over 10,000 | 0 | .00 |
| <u> </u> | | |
| TOTAL |] 328 | 100.00 |

46 percent of the schools in Arkansas have a total enrollment below 500 students.

HOW MANY OF THE LEAS PARTICIPATE IN CHAPTER 1?

| EXTENT OF PARTICIPATION | NUMBER | PERCENT |
|--------------------------|--------|---------|
| Regular Term Only | 292 | 89.02 |
| Regular and Summer Terms | 36 | 10.98 |
| TOTAL | 328 | 100.00 |

During the regular term, 292 LEAs and Co-op administered programs operated in Arkansas. An additional 36 LEAs and Co-op administered programs provided both regular and summer terms.

WHAT WAS THE NUMBER OF CHAPTER 1 ARKANSAS PUBLIC AND NON-PUBLIC SCHOOLS AND WHAT WAS THEIR ENROLLMENT BY LEVEL OF SCHOOL?

| LEVEL OF | PUBL1 | C SCHOOLS | NON-PUE | BLIC SCHOOLS | IATOT | SCHOOLS |
|-----------------|--------------|------------|---------|--------------|--------|------------|
| SCHOOL | NUMBER | ENROLLMENT | NUMBER | ENROLLMENT | NUMBER | ENROLLMENT |
| High School | 154 | 50,367 | 0 | 0 | 154 | 50,367 |
| Junior High | 87 | 36,146 | 0 | 0 | 87 | 36,146 |
| Middle | 50 | 22,623 | 0 | 0 | 50 | 22,623 |
| Elementary | 567 567 | 207,608 | 23 | 914 | 590 | 208,522 |
| TOTAL | 858 | 316,744 | 23 | 914 | 881 | 317,658 |



There were 20 less public schools with Chapter 1 in FY 90 than was operated in FY 89. The number of students enrolled increased by 8,663. The number of non-public schools decreased by 1, and the number of students enrolled decreased by 395. The Chapter 1 Management Program may have contributed to more realistic results.

WHAT IS THE ETHNIC DISTRIBUTION OF THE STUDENTS IN THE ARKANSAS PUBLIC SCHOOLS?

| - mark | } | WHITE | 正 | | | BLACK |) 점 | | | OTHER | ığı ı | | | TOTAL | W. | |
|---------------|----------|-----------|-----------------|-------|--------|-------|------------|-------|-------|--------|-------|------|---------|---------|---------|---------|
| MALE | -1- | | FEM | PCT | MALE | ונז | FEM | PCT | MALE | PCT | FEM | PCT | MALE | PCT | FEM | PCT |
| 13,299 | | /4.29 | 12,194 | 74.04 | 4,365 | 24.38 | 4,072 | 24.73 | 238 | 1.33 | 203 | 1.23 | 17,902 | 100.001 | 16,469 | 100.00 |
| 13,756 | 9- | 73.21 | 12,300 | 72.80 | 4,764 | 25.36 | 4,358 | 25.80 | 269 | 1.43 | 237 | 1.40 | 18,789 | 100.00 | 16,895 | 100.001 |
| 13,416 | 161 | 74.52 | 12,388 | 74.20 | 4,352 | 24.17 | 4,104 | 24.58 | 235 | 1.31 | 203 | 1.22 | 18,003 | 100.00 | 16,695 | 100.001 |
| 13,364 | 64 | 74.48 | 12,351 | 74.09 | 4,324 | 24.10 | 4,097 | 24.57 | 256 | 1.42 | 223 | 1.34 | 17,944 | 100.001 | 16,671 | 100.001 |
| 13,338 | 38 | 74.16 | 12,362 | 73.73 | 4,403 | 24.48 | 4,177 | 24.91 | 245 | 1.36 | 227 | 1.36 | 17,986 | 100.00 | 16,766 | 100.001 |
| 13,488 | 88 | 74.45 | 12,478 | 73.29 | 4,391 | 24.24 | 4,325 | 25.40 | 237 | 1.31 | 223 | 1.31 | 18,116 | 100.001 | 17,026 | 100.001 |
| 13,088 | 888 | 74.63 | 12,351 | 74.00 | 4,219 | 24.06 | 4,144 | 24.83 | 230 | 1.31 | 196 | 1.17 | 17,537 | 100.001 | 16,691 | 100.00 |
| 13,519 | 519 | 74.01 | 12,254 | 73.98 | 4,481 | 24.53 | 4,084 | 24.66 | 266 | 1.46 | 226 | 1.36 | 18,266 | 100.00 | 16,564 | 100.001 |
| 13,321 | 321 | 75.06 | 12,460 | 74.52 | 4,204 | 23.69 | 4,049 | 24.22 | 222 | 1.25 | 211 | 1.26 | 17,747 | 100.00 | 16,720 | 100.001 |
| 12,822 | 322 | 76.38 | 12,051 | 75.28 | 3,763 | 22.42 | 3,739 | 23.36 | 202 | 1.20 | 218 | 1.36 | 16,787 | 100.00 | 16,008 | 100.001 |
| 12,481 | 481 | 76.19 | 11,549 | 75.18 | 3,703 | 22.60 | 3,636 | 23.67 | 198 | 1.21 | 177 | 1.15 | 16,382 | 100.00 | 15,362 | 100.001 |
| 11, | 11,692 | 77.34 | 11,052 | 76.72 | 3,225 | 21.34 | 3,177 | 22.05 | 200 | 1.32 | 177 | 1.23 | 15,117 | 100.00 | 14,406 | 100.001 |
| 10, | 10,798 | 76.32 | 10,342 | 75.59 | 3,173 | 22.42 | 3,125 | 22.84 | 178 | 1.26 | 214 | 1.57 | 14,149 | 100.001 | 13,681 | 100.001 |
| TOTAL 168,382 | 382 | 74.93 | 74.93 156,132 | 74.37 | 53,367 | 23.75 | 51,087 | 24.33 | 2,976 | 1.32 2 | 2,735 | 1.30 | 224,725 | 100.001 | 209,954 | 100.00 |
| | | | | | | | | | | | | | | | | |

00

WHAT IS THE ETHNIC DISTRIBUTION OF THE STUDENTS IN THE CHAPTER 1 PROGRAMS DURING THE REGULAR TERM?

| | DO: | 100.00 | 100.001 | 100.001 | 100.00 | 100.001 | 100.001 | 100.001 | 100.001 | 100.001 | 100.001 | 100.001 | 100.00 | 100.00 | 100.001 |
|-----------|--------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------|---------------|
| AL | FFW | 2,257 | 3,649 | 4,150 | 3,674 | 3,639 | 3,186 | 2,865 | 1,929 | 1,841 | 520 | 307 | 209 | 167 | 28,393 |
| TOTAL | DC-III | 100.00 | 100.001 | 100.001 | 100.001 | 100.001 | 100.001 | 100.001 | 100.001 | 100.001 | 100.001 | 100.001 | 100.001 | 100.00 | 100.00 28,393 |
| | MAT.F. | 3,169 | 5,092 | 5,590 | 5,235 | 4,763 | 4,028 | 3,798 | 2,802 | 2,511 | 842 | 447 | 312 | 217 | 1.06 38,806 |
| | PCT | l | 99. | 1.01 | 1.06 | 1.15 | 1.07 | 1.15 | 1.24 | 1.30 | 1.35 | 1.30 | 1.44 | 1.80 | l |
| IER | FEM | 21 | 24 | 42 | 39 | 42 | 34 | 33 | 24 | 24 | 7 | 4 | m | М | 300 |
| OTHER | PCT | .63 | 1.12 | 1.05 | .97 | .88 | 68. | .97 | 1.18 | 1.63 | 1.19 | 68. | 1.28 | .92 | 1.02 |
| | MALE | 20 | 22 | 29 | 51 | 42 | 36 | 37 | 33 | 41 | 10 | 4 | 4 | 7 | 396 |
| | PCT | 53.92 | 42.78 | 37.57 | 40.86 | 41.20 | 41.68 | 41.08 | 45.21 | 39.38 | 45.19 | 66.45 | 62.68 | 67.06 | 42.69 |
| CK CK | FEM | 1,217 | 1,561 | 1,559 | 1,501 | 1,499 | 1,328 | 1,177 | 872 | 725 | 235 | 204 | 131 | 112 | 12,121 |
| BLACK | PCT | 48.41 | 39.41 | 34.51 | 38.40 | 37.27 | 38.33 | 39.13 | 37.58 | 35.92 | 40.73 | 55.26 | 06.09 | 61.75 | 39.05 |
| | MALE | 1,534 | 2,007 | 1,929 | 2,010 | 1,775 | 1,544 | 1,486 | 1,053 | 902 | 343 | 247 | 190 | 134 | 15,154 |
| | PCT | 45.15 | 56.56 | 61.42 | 58.08 | 57.65 | 57.25 | 57.77 | 53.55 | 59.32 | 53.46 | 32.25 | 35.88 | 31.14 | 56.25 |
| TE | FEM | 1,019 | 2,064 | 2,549 | 2,134 | 2,098 | 1,824 | 1,655 | 1,033 | 1,092 | 278 | 166 | 75] | 52 | 59.93 15,972 |
| WHITE | PCT | 50.96 | 59.47 | 64.44 | 60.63 | 61.85 | 60.78 | 59.90 | 61.24 | 62.45 | 58.08 | 43.85 | 37.82 | 37.33 | 59.93 |
| | MALE | 1,615 | 3,028 | 3,602 | 3,174 | 2,946 | 2,448 | 2,275 | 1,716 | 1,568 | 489 | 196 | 118 | 81 | 23,256 |
| GRADE | LEVEL | × | | 2 | т | 4 | ر د | 9 | | ω | 6 | 10 | 11 | 12 | TOTAL |

Û

42 percent of Chapter 1 participants belonged to an ethnic minority. This is the same as the percentage in FY 90. During FY 91, 75 percent of all Arkansas public school students were white (students from ethnic groups represented a larger share of Chapter 1 participants than they did in the general student population.) When examining participation by gender 57.7 percent of the Chapter 1 participants were male and 42.3 percent were female. The gender breakdown for all students in Arkansas public schools is 52 percent male and 48 percent female.

CHAPTER 1 PARTICIPANTS IN STATE INSTITUTIONS

| 1 | | PERCENT OF | NUMBER OF | PERCENT OF |
|----------------|---------------|------------|---------------|------------|
| INSTRUCTIONAL | TOTAL NUMBER | TOTAL | STUDENTS | STUDENTS |
| LEVEL | OF STUDENTS | POPULATION | IN PROGRAM | IN PROGRAM |
| 1 1 | 2 | .21 | 2 | .68 |
| 2 | 20 | 2.05 | 12 | 4.11 |
| 3 | 73 | 7.4/ | 28 | 9.59 |
| 4 | 103 | 10.54 | 19 | 6.51 |
| 5 | 129 | 13.20 | 24 | 8.22 |
| 6 | 94 | 9.62 | 23 | 7.88 |
| 7 | 171 | 17.50 | 62 | 21.23 |
| 8 | 161 | 16.48 | 59 | 20.21 |
| 9 | 119 | 12.18 | 29 | 9.93 |
| 10 | 55 | 5.63 | 25 | 8.56 |
| 11 | 18 | 1.84 | 8 | 2.74 |
| 12 | 32 | 3.28 | 1 | .34 |
| | | <u> </u> | | <u> </u> |
| TOTAL | 977 | 100.00 | 292 | 100.00 |

292 students from neglected and delinquent institutions participated in Chapter 1. This is 30 percent of the total number of students in the institution. In these institutions, Chapter 1 services focused primarily on students in the 7th, 8th and 9th grade age levels.

FUNDING:

FY 90 Chapter 1 funding was \$47,573,412.90 for public sc.ool students. This was a 5.0 percent increase from FY 89.

| 1 | | 1 | FULL-TIME |
|----------------------------|---------------|---------|-------------------|
| PROGRAM CATEGORY | AMOUNT | PERCENT | EQUIVALENTS (FTE) |
| Instructional Services | 42,009,343.06 | 88.30 | 2,452.08 |
| Pupil Support Services | 354,099.17 | .74 | 14.90 |
| Educational Needs | 103,618.37 | .22 | 4.50 |
| Administration | 3,049,409.69 | 6.41 | 76.04 |
| Improvement of Instruction | 961,398.25 | 2.02 | 37.97 |
| Planning and Evaluation | 5,452.83 | .01 | 0.00 |
| Operation and Maintenance | 316,507.61 | .67 | 0.00 |
| Non-public School Services | 209,566.87 | .44 | 6.13 |
| Facilities Acquisition | 195,118.17 | .41 | 0.00 |
| Indirect Cost | 368,898.88 | .78 | 0.00 |
| TOTAL | 47,573,412.90 | 100.00 | 2,591.62 |



Guidance, social work, transportation and health/nutrition were areas in which support services were provided.

| INSTRUCTIONAL | TOTAL | TOTAL COST | PER PUPIL |
|--------------------|--------------|-----------------|-----------|
| PROJECT | PARTICIPANTS | OF PROJECTS | COST |
| Reading | 40,407 | \$21,348,046.59 | \$ 528.33 |
| Mathematics | 27,821 | 10,397,757.59 | 373.74 |
| Early Childhood | 6,001 | 4,649,131.43 | 774.73 |
| Language Arts | 10,544 | 3,880,689.48 | 368.05 |
| Other Compensatory | 1 | | |
| Education | 1,169 | 1,733,717.97 | 1,483.08 |
| | | | |
| 1 | | 1 | |
| TOTAL | 85,942 | \$42,009,343.06 | \$ 488.81 |
| 1 | 1 | 1 | |

This is the second year the report has been broken down into the specific curriculum. In previous years there was a basic skills category -- it has been eliminated. Reading, mathematics, language arts and early childhood are the instructional components of Chapter 1 in Arkansas.

Average spending per student for all projects was \$488.81, which represents an increase of 1.0 percent from the previous year.

Reading represents a 47 percent or majority participation of the students. Mathematics follows with a 32 percent participation, language arts 12 percent participation and early childhood 7 percent participation. Other compensatory education makes up the remainder.

AN ANALYSIS OF THE TOTAL DISTRIBUTION ON CHAPTER 1 EXPENDITURES FOR ALL STATE INSTITUTIONS 1988-89

| EXPENDITURE CATEGORY | AMOUNT | PERCENT |
|----------------------------|--------------|---------|
| Instructional Services | \$240,344.02 | 91.06 |
| Indirect Cost | 10,000.00 | 3.79 |
| Administration | 9,308.41 | 3.53 |
| Improvement of Instruction | 4,078.71 | 1.54 |
| Planning and Evaluation | 200.00 | .08 |
| | | |
| TOTAL | \$263,931.14 | 100.00 |



THE FREQUENCY AND COST OF VARIOUS KINDS OF STAFF MEMBERS EMPLOYED IN CHAPTER 1 PROGRAMS-REGULAR TERM

| JOB CLASSIFICATION | NUMBER OF FTE | PERCENT | TOTAL COST |
|-------------------------|---------------|---------|---------------|
| Language Arts Teacher | 65.37 | 2.52 | 1,221,732.55 |
| Early Childhood Teacher | 25.83 | 1.00 | 480,221.97 |
| Reading Teacher | 491.60 | 18.97 | 10,992,906.73 |
| Mathematics Teacher | 192.90 | 7.44 | 4,183,660.24 |
| Non-public | 6.13 | .24 | 100,076.66 |
| Other Teacher | 29.98 | 1.16 | 562,100.54 |
| Chapter 1 Coordinator | 44.75 | 1.73 | 1,462,820.98 |
| Subject Area Supervisor | 14.60 | .56 | 452,187.29 |
| Social Worker | 14.86 | .57 | 186,327.23 |
| Teacher Aide | 1,631.56 | 62.95 | 12,170,976.93 |
| Bookkeeper | 6.11 | .23 | 108,354.17 |
| Administrative Clerk | 23.80 | .92 | 376,756.57 |
| Instructional Clerk | 14.49 | .56 | 145,524.26 |
| Parent Coordinator | 25.64 | .99 | 288,655.32 |
| Hippy Coordinator | 3.80 | .15 | 96,597.00 |
| Guidance Counselor | .20 | .01 | 6,375.00 |
| 1 | l | 1 | 1 |
| | 1 | 1 | 1 |
| TOTAL | 2,591.62 | 100.00 | 32,835,273.44 |
| | | | 1! |

Parent involvement is an integral part of a successful Charter 1 program. FTE parent coordinators increased by 82.8 percent.

HOW IS ACHIEVEMENT MEASURED?

Achievement gains resulting from Chapter 1 services are reported by all Arkansas Chapter 1 districts each year using a Normal Curve Equivalent (NCE) scale, in which scores range from 0 to 100. NCE scores allow results of different tests to be combined on a common scale. Without the benefit of supplementary services such as provided by Chapter 1, a student is expected to have zero NCE growth during the year, or to stay at the same percentile rank. Any increase in percentile rank or any NCE growth greater than zero is assumed to be the result of the extra services provided and represents more than a year's gain in achievement.

The following summary of Arkansas Chapter 1 achievement gains is based on students who were tested on a spring (pretest) to-spring (post-test) cycle on an annual basis.



1990 ACHIEVEMENT INFORMATION IN READING

| NI NI | ADV | 2,708 | 2,721 | 2,785 | 1,968 | 2,098 | 1,027 | 1,109 | 235 | 9/. | 85 | 83 | 14,895 |
|---------------------|--------------|-------|-------|-------|-------|-------|-------|-------|----------|------|-------------|------|--------|
| NUMBER GAIN |]] - | 2 | | | | | | | | | | | 14 |
| NUMBE | BASIC | 2,882 | 2,659 | 2,922 | 2,045 | 2,193 | 966 | 1,049 | 219 | 99 | 9/ | 09 | 15,167 |
| IN | ADV | 1.0 | 1.2 | 6.5 | -0.2 | 4.5 | 0.1 | 3.9 | 4.8 | -2.9 | 1.6 | 0.3 | 2.4 |
| GAIN | BASIC | 2.3 | 1.0 | 6.5 | 0.7 | 4.5 | -0.3 | 3.3 | 4.8 | -2.2 | 1.0 | 1.9 | 2.6 |
| POST-TEST | ADV | 38.4 | 34.8 | 40.1 | 35.8 | 37.5 | 34.2 | 37.2 | 38.0 | 29.0 | 28.7 | 25.9 | 36.9 |
| POST-TES | BASIC | 38.3 | 34.1 | 39.4 | 36.3 | 38.1 | 35.2 | 36.8 | 38.4 | 31.8 | 29.6 | 30.7 | 36.9 |
| SST C | ADV | 37.4 | 33.6 | 33.6 | 36.0 | 33.0 | 34.1 | 33.3 | 33.2 | 31.9 | 27.1 | 25.6 | 34.5 |
| PRETEST NCF MFAN | BASIC | 36.0 | 33.4 | 32.9 | 35.6 | 33.6 | 35.5 | 33.4 | 33.6 | 34.0 | 29.0 | 28.8 | 34.3 |
| NIIMPER | TAKING TEST | 5,599 | 5,198 | 4,751 | 4,149 | 3,813 | 2,156 | 1,932 | 462 | 166 | 176 | 132 | 28,534 |
| | PARTICIPANTS | 8,086 | 6,983 | 6,252 | 5,308 | 4,872 | 2,831 | 2,457 | 642 | 280 | 274 | 220 | 38,205 |
| GRADE | LEVEL | ~ | т | 4 | ιn | 9 | 7 | 8 | о | 10 | 11 | 12 | TOTAL |

<u>--</u>

BEST COPY AVAILABLE

1990 ACHIEVEMENT INFORMATION IN MATHEMATICS

| GAIN | ADV | 1,425 | 1,626 | 1,819 | 1,413 | 1,556 | 662 | 675 | 201 | 75 | 25 | 13 | 9,490 |
|------------------------|--------------|-------|-------|-------|-------|-------|-------|-------|----------|------|------|------|--------|
| NUMBER GAIN | BASIC | 1,612 | 1,621 | 1,997 | 1,607 | 1,641 | 069 | 738 | 223 | 99 | 28 | 19 | 10,242 |
| Z Z Z | ADV | 5.7 | 3.2 | 6.5 | 5.0 | 5.7 | 8 | 1.8 | 2.9 | 0.0 | 2.9 | 5.2 | 3.9 |
| GAIN NOF MFAN | BASIC | 6.5 | 3.5 | 7.6 | 3.3 | 6.9 | 1.3 | 4.2 | 2.1 | 1.1 | 9.0- | 8.5 | 5.0 |
| TEST | ADV | 41.4 | 39.1 | 41.3 | 36.1 | 38.1 | 39.7 | 38.3 | 38 7 | 31.1 | 3.7 | 5.2 | 38.9 |
| POS'P-TEST NCF MFAN | BASIC | 44.7 | 40.1 | 42.7 | 40.2 | 42.9 | 40.3 | 40.7 | 41.4 | 36.5 | 38.1 | 43.3 | 41.8 |
| SST | ADV | 35.7 | 35.9 | 34.8 | 35.7 | 32.4 | 36.9 | 36.5 | 35.8 | 31.1 | 2.8 | 0.0 | 35.0 |
| PRETEST NCF MFAN | BASIC | 38.2 | 36.5 | 35.1 | 36.9 | 36.0 | 39.0 | 36.5 | 39.3 | 35.5 | 38.7 | 34.8 | 36.8 |
| NUMBER | TAKING TEST | 2,772 | 3,094 | 3,146 | 2,999 | 2,760 | 1,325 | 1,309 | 403 | 147 | 67 | 32 | 18,054 |
| | PARTICIPANTS | 3,947 | 4,188 | 4,264 | 3,874 | 3,545 | 1,815 | 1,771 | 583 | 239 | 137 | 108 | 24,471 |
| GRADE | LEVEL | 2 | e a | 4 | ις | 9 | | 8 | б | 10 | 11 | 12 | TOTAL |

Ĕ.





S T

11

1990 ACHIEVEMENT INFORMATION IN LANGUAGE ARTS

| PARTICIPANTS TAKING TEST BASIC ADV A | GRADE | | I NUMBER | PRETEST NCE MEA | PRETEST | POST NCE 1 | POST-TEST NCE MEAN | GAIN NCE MEAN | IN MFAN | NUMBEI | NUMBER GAIN |
|--|-------|--------------|---------------|-----------------|---------|---------------|--------------------|------------------|------------|--------|-------------|
| 1,371 1,004 34.3 17.6 40.1 17.9 5.8 0.2 529 1,348 1,045 35.2 17.0 37.6 17.0 2.5 0.0 472 1,220 939 13.3 13.5 13.6 15.4 33.9 12.8 1.1 0.4 389 1,107 885 13.8 11.7 36.5 17.0 1.2 0.0 448 1,170 885 13.8 11.7 36.5 14.9 40.4 16.2 4.9 1.3 539 1,170 892 35.5 14.9 40.4 16.2 4.9 1.3 539 399 287 36.6 15.5 39.1 16.2 2.5 0.8 159 410 229 36.5 14.7 39.1 15.9 2.1 78 219 164 36.5 33.4 11.8 -1.0 2.1 78 219 164 36.5 33.4 11.8 -1.0 2.1 78 219 134.5 <td< th=""><th></th><th>PARTICIPANTS</th><th>TAKING TEST</th><th>BASIC</th><th>ADV</th><th>j j</th><th>ADV</th><th>BASIC</th><th>ADV</th><th>BASIC</th><th>1</th></td<> | | PARTICIPANTS | TAKING TEST | BASIC | ADV | j j | ADV | BASIC | ADV | BASIC | 1 |
| 1,348 1,045 35.2 17.0 37.6 17.0 2.5 0.0 472 1,220 939 32.3 13.5 35.8 15.4 3.5 1.9 534 984 773 32.8 12.4 33.9 12.8 1.1 0.4 389 1,107 885 31.8 11.7 36.5 17.0 4.7 0.9 448 1,772 927 38.0 16.9 39.3 17.0 1.2 0.1 503 1,170 892 35.5 14.9 40.4 16.2 4.9 1.3 539 410 229 36.6 15.5 39.1 16.2 2.5 0.8 159 410 229 36.5 14.7 39.1 15.9 2.6 1.2 109 219 164 34.4 9.6 33.4 11.8 -1.0 2.1 78 440 1.2 2.5 1.2 33.4 11.8 -1.0 2.1 78 410 2.6 34.8 8.0 | | 1,371 | 1,004 | 34.3 | 17.6 | 40.1 | 17.9 | 5.8 | 0.2 | 529 | 460 |
| 939 32.3 13.5 15.4 3.5 15.4 3.5 1.1 0.4 534 773 32.8 12.4 33.9 12.8 1.1 0.4 389 885 31.8 11.7 36.5 17.0 1.2 4.9 448 927 38.0 16.9 39.3 17.0 1.2 0.1 503 892 35.5 14.9 40.4 16.2 4.9 1.3 539 287 36.6 15.5 39.1 16.2 2.5 0.8 159 229 36.5 14.7 30.1 15.9 2.6 1.2 109 164 34.4 9.6 33.4 11.8 -1.0 2.1 78 7,181 34.5 14.8 37.8 15.5 3.3 0.7 3,811 3,811 | | 1,348 | 1,045 | 35.2 | 17.0 | 37.6 | 17.0 | | 0.0 | 472 | 478 |
| 984 773 32.8 12.4 33.9 12.8 1.1 0.4 389 1,107 885 31.8 11.7 36.5 12.6 4.7 0.9 448 1,712 927 38.0 16.9 39.3 17.0 1.2 0.1 503 1,170 892 35.5 14.9 40.4 16.2 4.9 1.3 539 287 36.6 15.5 39.1 16.2 2.5 0.8 159 410 229 36.5 14.7 39.1 15.9 2.6 1.2 109 219 164 34.4 9.6 33.4 11.8 -1.0 2.1 78 9,604 7,181 34.5 14.8 37.8 15.5 3.3 0.7 3,811 </td <td></td> <td>1,220</td> <td>639</td> <td>32.3</td> <td>13.5</td> <td>35.8</td> <td>15.4</td> <td>3.5</td> <td>1.9</td> <td>534</td> <td>469</td> | | 1,220 | 639 | 32.3 | 13.5 | 35.8 | 15.4 | 3.5 | 1.9 | 534 | 469 |
| 1,107 885 31 \$ 11.7 36 \$ 5 17.6 4.7 0.9 448 1,272 927 38.0 16.9 39.3 17.0 1.2 0.1 503 1,170 892 35.5 14.9 40.4 16.2 4.9 1.3 539 399 287 36.6 15.5 39.1 16.2 2.5 0.8 159 410 229 36.5 14.7 39.1 15.9 2.6 1.2 109 219 164 34.4 9.6 33.4 11.8 -1.0 2.1 78 9,604 7,181 34.5 14.8 37.8 15.5 3.3 0.7 3,811< | | 984 | 713 | 32.8 | 12.4 | 33.9 | 12.8 | 1.1 | 0.4 | 386 | 365 |
| 1,712 927 38.0 16.9 39.3 17.0 1.2 0.1 503 1,170 892 35.5 14.9 40.4 16.2 4.9 1.3 539 287 36.6 15.5 39.1 16.2 2.5 0.8 159 410 229 36.5 14.7 39.1 15.9 2.6 1.2 109 219 164 34.4 9.6 33.4 11.8 -1.0 2.1 78 144 76 34.8 8.0 36.4 6.8 1.6 -1.1 51 9,604 7,181 34.5 14.8 37.8 15.5 3.3 0.7 3,811 | | 1,107 | 885 | | 11.7 | | 12.6 | 4.7 | 6.0 | 448 | 468 |
| 1,170 892 35.5 14.9 40.4 16.2 4.9 1.3 539 399 287 36.6 15.5 39.1 16.2 2.5 0.8 159 410 229 36.5 14.7 39.1 15.9 7.6 1.2 109 219 164 34.4 9.6 33.4 11.8 -1.0 2.1 78 144 76 34.8 8.0 36.4 6.8 1.6 -1.1 51 9,604 7,181 34.5 14.8 37.8 15.5 3.3 0.7 3,811 3,811 | | 2,272 | 927 | 38.0 | 16.9 | 39.3 | 17.0 | 1.2 | 0.1 | £03 | 335 |
| 399 287 36.6 15.5 39.1 16.2 2.5 0.8 159 410 229 36.5 14.7 39.1 15.9 2.6 1.2 109 219 164 34.4 9.6 33.4 11.8 -1.0 2.1 78 144 76 34.8 8.0 36.4 6.8 1.6 -1.1 51 9,604 7,181 34.5 14.8 37.8 15.5 3.3 0.7 3,811 | | 1,170 | 268 | 35.5 | 14.9 | 40.4 | 16.2 | 4.9 | 1.3 | 539 | 386 |
| 410 229 36.5 14.7 39.1 15.9 2.6 1.2 109 219 164 34.4 9.6 33.4 11.8 -1.0 2.1 78 144 76 34.8 8.0 36.4 6.8 1.6 -1.1 51 9,604 7,181 34.5 14.8 37.8 15.5 3.3 0.7 3,811 | | 399 | 287 | 36.6 | 15.5 | 39.1 | 16.2 | 5.5 | 0.8 | 159 | 122 |
| 219 164 34.4 9.6 33.4 11.8 -1.0 2.1 78 144 76 34.8 8.0 36.4 6.8 1.6 -1.1 51 9,604 7,181 34.5 14.8 37.8 15.5 3.3 0.7 3,811 | | 410 | 229 | 36.5 | 14.7 | 39.1 | 15.9 | 2.6 | 1.2 | 109 | 101 |
| 144 76 34.8 8.9 36.4 6.8 1.6 -1.1 51 9,604 7,181 34.5 14.8 37.8 15.5 3.3 0.7 3,811 | | 219 | 164 | 34.4 | 9.6 | 33.4 | 11.8 | -1.0 | 2.1 | 78 | 98 |
| 9,604 7,181 34.5 14.8 37.8 15.5 3.3 0.7 3,811 | | 144 | 9/ | 34.8 | 8.0 | 36.4 | 6.8 | 1.6 | -1.1 | 5.1 | 48 |
| | 77. | 9,604 | 7,181 | 34.5 | 14.8 | 37.8 | 15.5 | 3.3 | 0.7 | 3,811 | 3,318 |

1990 ACHIEVEMENT INFORMATION IN EARLY CHILDHOOD

| NCE MEAN NCE MEAN BASIC ADV BASIC ADV AD | | PRETEST |
|--|------|--------------|
| *.* *.* *.* 0.0 0.0 41.6 39.2 42.6 21.3 22.6 21.3 22.6 21.3 23.5 | | NCE MEAN |
| 41.6 39.2 6 21.3 | BAS | BASIC ADV |
| 0.0 0.0 41.6 39.2 2 22.6 21.3 | * | * |
| 41.6 39.2 | 0. | 0.0 |
| 22.6 21.3 | 39.2 | 0.0 0.0 |
| 22.6 21.3 | | |
| | 21. | 0.0 0.0 21.3 |

participants. Average NCE gains across all grades were positive, except reading, advanced skills in grade 5, basic skills in grade 7, and basic and advanced skills in grade 10. Reading, language arts and machematics programs across Arkansas were effective in improving the achievement of

In mathematics, only grade 11 showed a loss in basic skills. While in language arts, grade 11 showed losses in The language arts can be evaluated using either language tests or reading scores. If reading is used the advanced skills must be reported. basic skills and grade 12 showed losses in advanced skills.

scores increased 3.3 NCEs. In mathematics, Arkansas Chapter 1 participants increased their scores 5.0 in basic skills and 3.9 in advanced skills. Across grades 2-12, Arkansas Chapter 1 students increased their reading scores 2.6 NCEs and their language arts

Prepared in accordance with: Public Law 100-297.